BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work : **Improvements of Roads and Drains and Constuction of Community Hall at AK Colony at Kodigehalli in Ward No 08**

Job Code:-

Estimate Cost: =80.00 Lakh

Sl. No.	Description of work	Unit	No.	L m	B m	D m	Q	Rate in Rs.	Amount in Rs.
1	KSRRB M200-24. Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specifications. MORTH Specification No. 202 Page No 140 /Item No 18.47 / PWD SR 2018-19								
	A K Calony	Cum							
	A K Calony Main Road		1	70.00	3.00	0.20	42.00		
	A K Calony cross road		1	65.00	2.50	0.20	32.50		
	Cross Road		1	100.00	3.50	0.20	70.00		
	Cross Road		1	50.00	2.50	0.20	25.00		
	Cross Road		1	20.00	2.00	0.20	8.00		
							177.50	**1,014.54**	**180080.85**
	Basic rate	**899.00**							
	Loading and unloading with 20km lead (as per SR-2018-19)= 57+2.0x1.3x20	**109.00**							
	Area Weightage 6%	**6.54**							
	Sub Total	**1014.54**							
	Total	**1014.54**							
2	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location and complete as per specifications. MORTH Specification No.301								
	A K Calony	Cum							
	A K Calony Main Road		1	70.00	3.00	0.30	63.00		
	A K Calony cross road		1	65.00	2.50	0.30	48.75		
	Cross Road		1	100.00	3.50	0.30	105.00		
	Cross Road		1	50.00	2.50	0.30	37.50		
	Cross Road		1	20.00	2.00	0.30	12.00		
							266.25	**246.00**	**65497.50**
	Basic rate	130							
	Loading and unloading with 20km lead (as per SR-2018-19)= 57+2.0x1.28x20	**108.2**							
	Area Weightage 6%	**7.80**							
	Sub Total	**246.00**							
	Total	**246.00**							
	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (Page No 158, Item No 19.1)								
	New RCC Drain								
	Maruthinagar		2	150.00	1.10	0.90	297.00		
			2	95.00	1.10	0.90	188.10		
			2	75.00	1.10	0.90	148.50		
	New Culvert		4	7.00	1.35	1.10	41.58		

(11)

Sl. No.	Description of work	Unit	No.	L	B	D	Q	Rate in Rs.	Amount in Rs.
				m	m	m			
							675.18	**244.69**	**165211.14**
	Basic rate	130							
	Loading and unloading with 20km lead (as per SR-2018-19)= 57+2.0x1.28x20	108.2							
	Area Weightage 6%	**6.49**							
	Sub Total	**244.69**							
	Total	**244.69**							
4	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision. (P.No.153, I.No.20.5 of PW,P&IWTD SR 2018-19)								
	A K Calony	Cum							
	A K Calony Main Road		1	70.00	3.00	0.20	42.00		
	A K Calony cross road		1	65.00	2.50	0.20	32.50		
	Cross Road		1	100.00	3.50	0.20	70.00		
	Cross Road		1	50.00	2.50	0.20	25.00		
	Cross Road		1	20.00	2.00	0.20	8.00		
							177.50	**1,994.92**	**354098.30**
	Basic rate	1882							
	Area Weightage 6%	**112.92**							
	Sub Total	**1994.92**							
	Total	**1994.92**							
3	KSRB 4-1.2 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs. with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No. 13/I.No. 4.2 PWD SR 2018-19)								
	A K Calony	Cum							
	A K Calony Main Road		1	70.00	3.00	0.15	31.50		
	A K Calony cross road		1	65.00	2.50	0.15	24.38		
	Cross Road		1	100.00	3.50	0.15	52.50		
	Cross Road		1	50.00	2.50	0.15	18.75		
	Cross Road		1	20.00	2.00	0.15	6.00		
	New RCC Drain								
	Maruthinagar		2	150.00	1.10	0.15	49.50		
			2	95.00	1.10	0.15	31.35		
			2	75.00	1.10	0.15	24.75		
	New Culvert		4	7.00	1.35	0.15	5.67		
							244.40	**5,505.64**	**1345550.89**
	Basic rate	5194.00							
	Area Weightage 6%	311.64							
	Sub Total	5505.64							
	Total	5505.64							
7	KSRB 4-6.1: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specifcation No. KBS 4.6.2 with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the work								
	New Culvert								
	Raft		8	7.00		0.20	11.20		
							11.20	**273.48**	**3062.98**
	Basic rate	**258.00**							

Sl. No.	Description of work	Unit	No.	L	B	D	Q	Rate in Rs.	Amount in Rs.
				m	m	m			
	Area Weightage 6%	**15.48**							
	Sub Total	**273.48**							
	Total	**273.48**							
8	KSRB 4-6.4: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls at any thickness, including attached pilasters. buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No.KBS 4.6.2 with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the work								
	New Culvert								
	Side Walls		16.00	7.00		0.75	84.00		
							84.00	**379.48**	**31876.32**
	Basic rate	358.00							
	Area Weightage 6%	21.48							
	Sub Total	379.48							
	Total	379.48							
9	Providing and laying cement concrete using 20mm and downsize granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) for RCC works laid in 15cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, with all lead and lifts etc., complete (exclusive of cpost of steel and fabricaton charges) Ready Mixed Cement Concrete M 20 for Raft foundation, Column, Footing, main and secondary beams. (P.No.18, I.No.4.48 of PW, P&IWTD SR 2018-19)								
	New Culvert								
	Raft		4	7.00	1.15	0.20	6.44		
	Side Walls		8	7.00	0.20	0.75	8.40		
							14.84	**5770.64**	**85636.30**
	Basic rate	**5444.00**							
	Area Weightage 6%	**326.64**							
	Sub Total	**5770.64**							
	Total	**5770.64**							
	Providing laying plain/ reinforced cement concrete for Box Wall thickness of 10 to 20 cm drains including centring, shuttering, form work etc HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. PCC M20 Grade upto 0.75mm height using concrete mixture complete including cost of materials, :abour, HOM complete as per specification ifications. Specification No. KBS 4.1, 4.2. (P.No.271, I.No.37.59.2 of PW, P&IWTD SR 2018-19)								
	New RCC Drain								
	Maruthinagar								
	Raft Concrete		2	150.00	0.90	0.15	40.50		
			2	95.00	0.90	0.15	25.65		
			2	75.00	0.90	0.15	20.25		
	Side Wall Concrete		4	150.00	0.15	0.65	58.50		
			4	95.00	0.15	0.65	37.05		
			4	75.00	0.15	0.65	29.25		
							211.20	7,273.72	1536209.66
	Basic rate	6862							
	Area Weightage 6%	**411.72**							
	Sub Total	**7273.72**							
	Total	**7273.72**							

Sl. No.	Description of work	Unit	No.	L	B	D	Q	Rate in Rs.	Amount in Rs.
				m	m	m			
1	KSRB - 4.9.2: Providing TMT steel Fe500 reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the work, TMT Bars Fe 500, (Page No. 239, I No. 29.29.2 PWD SR 2018-19)								
		Tonne							
	Consider 60 kg/cum concrete for Drain		1	211.20		0.06	**12.67**		
	Consider 80 kg/cum concrete for Drain		1	14.84		0.08	**1.19**		
	Basic rate	70966					13.86	75,223.96	1042543.91
	Area Weightage 6%	**4257.96**							
	Sub Total	**75223.96**							
	Total	**75223.96**							
7	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick and Finishing cutting .including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift.transportation etc .copmplete. (Data Rate)								
		Sqm							
	Maruthinagar								
			2	150.00	0.90		270.00		
			2	95.00	0.90		171.00		
	Missing Cover slabs		2	35.00	0.90		63.00		
	DATA RATE		**2134**				**504.00**	**2134.00**	**1075536.00**
	Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	New Culvert								
			4	7.00	1.50		42.00		
	Data Rate		**4218.00**				**42.00**	4218.00	177156.00

Sl. No.	Description of work	Unit	No.	L	B	D	Q	Rate in Rs.	Amount in Rs.
				m	m	m			
5	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum)(P.No.175, I.No.22.2.2 of PW,P&IWTD SR 2018-19)								
	A K Calony	Cum							
	A K Calony Main Road		1	70.00	3.00	0.10	21.00		
	A K Calony cross road		1	65.00	2.50	0.10	16.25		
	Cross Road		1	100.00	3.50	0.10	35.00		
	Cross Road		1	50.00	2.50	0.10	12.50		
	Cross Road		1	20.00	2.00	0.10	4.00		
							88.75	**5,849.08**	**519105.85**
	Basic rate	5518							
	Area Weightage 6%	**331.08**							
	Sub Total	**5849.08**							
	Total	**5849.08**							
6	Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery. Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.(P.No.176, I.No.22.7 of PW,P&IWTD SR 2018-19)								
	A K Calony	Sqm							
	A K Calony Main Road		1.00	70.00	3.00		210.00		
	A K Calony cross road		1.00	65.00	2.50		162.50		
	Cross Road		1.00	100.00	3.50		350.00		
	Cross Road		1.00	50.00	2.50		125.00		
	Cross Road		1.00	20.00	2.00		40.00		
							887.50	**72.08**	**63971.00**
	Basic rate	68							
	Area Weightage 6%	**4.08**							
	Sub Total	**72.08**							
	Total	**72.08**							
1	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete. (P.No.25, I.No.5.30 of PW,P&IWTD S.R 2018-19)								
	New Kerbs	No.							
	Maruthinagar								
			2.00	150.00	--	/0.45	666.00		
	Missing Kerbs		2.00	40.00	--	/0.45	178.00		
							844.00	**496.00**	**418624.00**
	Data Rate	**496.00**							
2	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 Page No. 180 Item No 24.1 PWD SR 2018-19								

Sl. No.	Description of work	Unit	No.	L	B	D	Q	Rate in Rs.	Amount in Rs.
				m	m	m			
	Maruthinagar	Sqm							
			2.00	150.00		0.35	105.00		
	Missing Kerbs		2.00	40.00		0.35	28.00		
							133.00	84.00	11172.00
	Basic rate	80.00							
	Area Weightage 6%	4.80							
	Final Rate	84.80							
7								Total Construction Cost	7075332.70
8								12% GST	849039.92
								1% PMC Charges	70753.33
								Sub Total	7995125.95
								Miscellaneous and rounding off	4874.05
								Total	8000000.00

Certificate.

1 The workspot was inspected and work is found to be necessary.
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The rates adopted based on the PWD SR, Bangalore circle for year 2018-19.
4 The provisions made in the estimate are necessary and essential.

Assistant Engineer

Executive Engineer

Assistant Executive Engineer

Technical Sanction
Accorded For R.S.80.00 lakhs only
Head of A/C. P1878
CER NO :...30..... Dt.: 28.05.2019

TA CE (YNK)

ADMINISTRATIVE APPROVAL
Accorded For Rs. 80.00 Lakhs
Head of A/c. P1878
Div. Ref. No. 08 Date 28/5/2020

AE EE(BTP)

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work : Improvements of Roads and Drains at Ganagabhavani Temple Surrounding Area Kodigehalli in Ward No 08

Job Code:-

Estimate Cost: =55.00 Lakh

Sl. No.	Description of work	Unit	No.	L	B	D	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
1	KSRRB M200-24. Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specifications. MORTH Specification No. 202 Page No 140 /Item No 18.47 / PWD SR 2018-19								
	Cross Roads in Gangabhavani Temple	Cum							
	Cross Roads 1		1	40.00	2.00	0.20	16.00		
	Cross Roads 2		1	40.00	2.30	0.20	18.40		
	Cross Roads 3		1	50.00	3.50	0.20	35.00		
	Cross Roads 4		1	40.00	2.00	0.20	16.00		
	Cross Roads 5		1	40.00	2.30	0.20	18.40		
	Cross Roads 6		1	30.00	2.00	0.20	12.00		
	Kodigehalli smashana road		1	176.00	6.50	0.20	228.80		
	Basic rate	**899.00**					**344.60**	**1,014.54**	349610.48
	Loading and unloading with 20km lead (as per SR-2018-19)= 57+2.0x1.3x20	**109.00**							
	Area Weightage 6%	**6.54**							
	Sub Total	**1014.54**							
	Total	**1014.54**							
2	KSRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (Page No 158, Item No 19.1)								
	New RCC Drains	Cum							
	Cross Roads in Gangabhavani Temple	Cum							
	Cross Roads 3		2	50.00	0.70	0.50	35.00		
	Cross Roads 5		1	15.00	0.70	0.50	5.25		
	Kodigehalli smashana road		1	75.00	1.10	0.90	74.25		
	RCC Culvert								
			3	7.00	1.35	1.10	31.19		
							145.69	**244.69**	35647.95
	Basic rate	**130**							
	Loading and unloading with 20km lead (as per SR-2018-19)= 57+2.0x1.28x20	**108.2**							
	Area Weightage 6%	**6.49**							
	Sub Total	**244.69**							
	Total	**244.69**							

Sl. No.	Description of work	Unit	No.	L	B	D	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
3	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location and complete as per specifications. MORTH Specification No.301								
	Cross Roads in Gangabhavani Temple	Cum							
	Cross Roads 1		1	40.00	2.00	0.30	24.00		
	Cross Roads 2		1	40.00	2.30	0.30	27.60		
	Cross Roads 3		1	50.00	3.50	0.30	52.50		
	Cross Roads 4		1	40.00	2.00	0.30	24.00		
	Cross Roads 5		1	40.00	2.30	0.30	27.60		
	Cross Roads 6		1	30.00	2.00	0.30	18.00		
	Kodigehalli smashana road		1	176.00	6.50	0.30	343.20		
	Basic rate	**130**					**516.90**	246.00	127157.40
	Loading and unloading with 20km lead (as per SR-2018-19)= 57+2.0x1.28x20	**108.2**							
	Area Weightage 6%	**7.80**							
	Sub Total	**246.00**							
	Total	**246.00**							
4	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision. (P.No.153, I.No.20.5 of PW,P&IWTD SR 2018-19)								
	Cross Roads in Gangabhavani Temple	Cum							
	Cross Roads 1		1	40.00	2.00	0.20	16.00		
	Cross Roads 2		1	40.00	2.30	0.20	18.40		
	Cross Roads 3		1	50.00	3.50	0.20	35.00		
	Cross Roads 4		1	40.00	2.00	0.20	16.00		
	Cross Roads 5		1	40.00	2.30	0.20	18.40		
	Cross Roads 6		1	30.00	2.00	0.20	12.00		
	Kodigehalli smashana road		1	176.00	6.50	0.20	228.80		
	Basic rate	1882					**344.60**	1,994.92	687449.43
	Area Weightage 6%	**112.92**							
	Sub Total	**1994.92**							
	Total	**1994.92**							
5	KSRB 4-1.2 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No. 13/I.No. 4.2 PWD SR 2018-19)								
	Cross Roads in Gangabhavani Temple	Cum							
	Cross Roads 1		1	40.00	2.00	0.15	12.00		
	Cross Roads 2		1	40.00	2.30	0.15	13.80		
	Cross Roads 3		1	50.00	3.50	0.15	26.25		
	Cross Roads 4		1	40.00	2.00	0.15	12.00		

Sl. No.	Description of work	Unit	No.	L	B	D	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Cross Roads 5		1	40.00	2.30	0.15	13.80		
	Cross Roads 6		1	30.00	2.00	0.15	9.00		
	Kodigehalli smashana road		1	176.00	6.50	0.15	171.60		
	Bed Concrete For Drain								
	Cross Roads in Gangabhavani Temple								
	Cross Roads 3		2.00	50.00	0.70	0.10	7.00		
	Cross Roads 5		1.00	15.00	0.70	0.10	1.05		
	Kodigehalli smashana road		1.00	75.00	1.10	0.10	8.25		
	RCC Culvert								
			3	7.00	1.35	0.15	4.25		
							279.00	**5,505.64**	1536087.32
	Basic rate	**5194.00**							
	Area Weightage 6%	**311.64**							
	Sub Total	**5505.64**							
	Total	**5505.64**							
6	KSRB 4-6.1: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specifcation No. KBS 4.6.2 with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the work								
	RCC Culvert								
	Raft		6	7.00		0.20	8.40		
							8.40	**273.48**	2297.23
	Basic rate	**258.00**							
	Area Weightage 6%	**15.48**							
	Sub Total	**273.48**							
	Total	**273.48**							
7	KSRB 4-6.4: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No.KBS 4.6.2 with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the work								
	RCC Culvert								
	Side Walls		12.00	7.00		0.75	63.00		
							63.00	**379.48**	23907.24
	Basic rate	358.00							
	Area Weightage 6%	21.48							
	Sub Total	379.48							
	Total	379.48							
8	Providing and laying cement concrete using 20mm and downsize granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) for RCC works laid in 15cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, with all lead and lifts etc., complete (exclusive of cpost of steel and fabricaton charges) Ready Mixed Cement Concrete M 20 for Raft foundation, Column, Footing, main and secondary beams. (P.No.18, I.No.4.48 of PW, P&IWTD SR 2018-19)								
	RCC Culvert								

Sl. No.	Description of work	Unit	No.	L	B	D	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Raft		3	7.00	1.15	0.20	4.83		
	Side Walls		6	7.00	0.20	0.75	6.30		
							11.13	**5770.64**	**64227.22**
	Basic rate	**5444.00**							
	Area Weightage 6%	**326.64**							
	Sub Total	**5770.64**							
	Total	**5770.64**							
9	Providing laying plain/ reinforced cement concrete for Box Wall thickness of 10 to 20 cm drains including centring, shuttering, form work etc HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. PCC M20 Grade upto 0.75mm height using concrete mixture complete including cost of materials, ;abour, HOM complete as per specification ifications. Specification No. KBS 4.1, 4.2. (P.No.271, I.No.37.59.2 of PW, P&IWTD SR 2018-19)								
	Cross Roads in Gangabhavani Temple	Cum							
	Raft								
	Cross Roads 3		2.00	50.00	0.50	0.10	5.00		
	Cross Roads 5		1.00	15.00	0.50	0.10	0.75		
	Kodigehalli smashana road		1.00	75.00	0.90	0.15	10.13		
	Side wall								
	Cross Roads 3		4.00	50.00	0.10	0.30	6.00		
	Cross Roads 5		2.00	15.00	0.10	0.30	0.90		
	Kodigehalli smashana road		2.00	75.00	0.15	0.65	14.63		
							37.40	7,273.72	272037.13
	Basic rate	6862							
	Area Weightage 6%	**411.72**							
	Sub Total	**7273.72**							
	Total	**7273.72**							
10	KSRB - 4.9.2: Providing TMT steel Fe500 reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the work. TMT Bars Fe 500, (Page No. 239, I No. 29.29.2 PWD SR 2018-19)								
		Tonne							
	Consider 60 kg/cum concrete for Drain		1	37.40		0.06	**2.24**		
	Consider 80 kg/cum concrete for Culvert		1	11.13		0.08	**0.89**		
							3.13	75,223.96	**235781.98**
	Basic rate	70966							
	Area Weightage 6%	**4257.96**							
	Sub Total	**75223.96**							
	Total	**75223.96**							
11	Providing and Fixing **pre cast covering Slab** made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc .copmplete. (Data Rate)								

Sl. No.	Description of work	Unit	No.	L	B	D	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	For CC Drain Top Covering Slab	Sqm							
	Cross Roads in Gangabhavani Temple								
	Cross Roads 3		2	50.00	0.50		50.00		
	Cross Roads 5		1	15.00	0.50		7.50		
	Kodigehalli smashana road		1	75.00	0.90		67.50		
							125.00	**2134.00**	**266750.00**
	Data Rate		**2134.00**						
12	Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	RCC Culvert								
			3	7.00	1.50		31.50		
							31.50	**4218.00**	**132867.00**
	Data Rate		**4218.00**						
13	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum)(P.No.175, I.No.22.2.2 of PW,P&IWTD SR 2018-19)								
	Cross Roads in Gangabhavani Temple	Cum							
	Cross Roads 1		1	40.00	2.00	0.10	8.00		
	Cross Roads 2		1	40.00	2.30	0.10	9.20		
	Cross Roads 3		1	50.00	3.50	0.10	17.50		
	Cross Roads 4		1	40.00	2.00	0.10	8.00		
	Cross Roads 5		1	40.00	2.30	0.10	9.20		
	Cross Roads 6		1	30.00	2.00	0.10	6.00		
	Kodigehalli smashana road		1	176.00	6.50	0.10	114.40		
							172.30	5,849.08	**1007796.48**
	Basic rate	5518							
	Area Weightage 6%	**331.08**							
	Sub Total	**5849.08**							
	Total	**5849.08**							

No.	Description of work	Unit	No.	L	B	D	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
14	Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.(P.No.176, I.No.22.7 of PW,P&IWTD SR 2018-19)								
	Cross Roads in Gangabhavani Temple	Sqm							
	Cross Roads 1		1.00	40.00	2.00		80.00		
	Cross Roads 2		1.00	40.00	2.30		92.00		
	Cross Roads 3		1.00	50.00	3.50		175.00		
	Cross Roads 4		1.00	40.00	2.00		80.00		
	Cross Roads 5		1.00	40.00	2.30		92.00		
	Cross Roads 6		1.00	30.00	2.00		60.00		
	Kodigehalli smashana road		1.00	176.00	6.50		1144.00		
							1723.00	72.08	**124193.84**
	Basic rate	68							
	Area Weightage 6%	**4.08**							
	Sub Total	**72.08**							
	Total	**72.08**							
15								**Total Construction Cost**	4865810.72
16								**12% GST**	583897.29
								1% PMC Charges	48658.11
								Sub Total	5498366.11
17								**Miscellaneous and rounding off**	1633.89
								Total	5500000.00

Certificate.

1 The workspot was inspected and work is found to be necessary.
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The rates adopted based on the PWD SR, Bangalore circle for year 2018-19.
4 The provisions made in the estimate are necessary and essential.

Assistant Engineer

Executive Engineer

Assistant Executive Engineer

Technical Sanction
Accorded For Rs 55 Lakhs only
Head of A/C P.1878
CER NO :32 Dt: 28.05.2019

TA CE (YNK)

ADMINISTRATIVE APPROVAL
Accorded For Rs. 55.00 Lakhs only
Head of A/c. P.1878
Div. Ref. No. 07 Date. 28/05/2020

AE EE(BTP)

BRUHAT BANGALORE MAHANAGARA PALIKE

Name of Work : **Improvements of Roads and Drains at Maruthinagara and BB Nagara Kodigehalli in Ward No 08**

Job Code:-

Estimate Cost: =65.00 Lakh

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
1	KSRRB M200-24. Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stock piling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials seperately complete as per specifications. MORTH Specification No. 202 Page No 140 /Item No 18.47 / PWD SR 2018-19								
	B B Nagar Kodigehalli	Cum							
	B B Nagar main Road		1	107.00	5.00	0.20	107.00		
	1st Cross road		1	66.00	4.00	0.20	52.80		
	2nd Cross Road		1	55.00	3.50	0.20	38.50		
	Maruthinagar								
	1st Cross road		1	190.00	3.50	0.20	133.00		
	2nd Cross Road		1	190.00	3.00	0.20	114.00		
	Cross Road		1	30.00	4.00	0.20	24.00		
							469.30	1,014.54	476123.62
	Basic rate	**899.00**							
	Loading and unloading with 20km lead (as per SR-2018-19)= 57+2.0x1.3x20	**109.00**							
	Area Weightage 6%	**6.54**							
	Sub Total	**1014.54**							
	Total	**1014.54**							
2	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location and complete as per specifications. MORTH Specification No.301								
	B B Nagar Kodigehalli	Cum							
	B B Nagar main Road		1	107.00	5.00	0.30	160.50		
	1st Cross road		1	66.00	4.00	0.30	79.20		
	2nd Cross Road		1	55.00	3.50	0.30	57.75		
	Maruthinagar								
	1st Cross road		1	190.00	3.50	0.30	199.50		
	2nd Cross Road		1	190.00	3.00	0.30	171.00		
	Cross Road		1	30.00	4.00	0.30	36.00		
							703.95	246.00	173171.70
	Basic rate	130							
	Loading and unloading with 20km lead (as per SR-2018-19)= 57+2.0x1.28x20	**108.2**							
	Area Weightage 6%	**7.80**							
	Sub Total	**246.00**							
	Total	**246.00**							

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
3	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications. Clause 401 of MORTH V Revision. (P.No.153, I.No.20.5 of PW,P&IWTD SR 2018-19)								
	B B Nagar Kodigehalli	Cum							
	B B Nagar main Road		1	107.00	5.00	0.20	107.00		
	1st Cross road		1	66.00	4.00	0.20	52.80		
	2nd Cross Road		1	55.00	3.50	0.20	38.50		
	Maruthinagar								
	1st Cross road		1	190.00	3.50	0.20	133.00		
	2nd Cross Road		1	190.00	3.00	0.20	114.00		
	Cross Road		1	30.00	4.00	0.20	24.00		
							469.30	1,994.92	936215.96
	Basic rate	1882							
	Area Weightage 6%	**112.92**							
	Sub Total	**1994.92**							
	Total	**1994.92**							
4	KSRB 4-1.2 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No. 13/I.No. 4.2 PWD SR 2018-19)								
	B B Nagar Kodigehalli	Cum							
	B B Nagar main Road		1	107.00	5.00	0.15	80.25		
	1st Cross road		1	66.00	4.00	0.15	39.60		
	2nd Cross Road		1	55.00	3.50	0.15	28.88		
	Maruthinagar								
	1st Cross road		1	190.00	3.50	0.15	99.75		
	2nd Cross Road		1	190.00	3.00	0.15	85.50		
	Cross Road		1	30.00	4.00	0.15	18.00		
							351.98	**5,505.64**	1937847.64
	Basic rate	5194.00							
	Area Weightage 6%	311.64							
	Sub Total	5505.64							
	Total	5505.64							

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
5	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum)(P.No.175, I.No.22.2.2 of PW,P&IWTD SR 2018-19)								
	B B Nagar Kodigehalli	Cum							
	B B Nagar main Road		1	107.00	5.00	0.15	80.25		
	1st Cross road		1	66.00	4.00	0.15	39.60		
	2nd Cross Road		1	55.00	3.50	0.15	28.88		
	Maruthinagar								
	1st Cross road		1	190.00	3.50	0.15	99.75		
	2nd Cross Road		1	190.00	3.00	0.15	85.50		
	Cross Road		1	30.00	4.00	0.15	18.00		
							351.98	5,849.08	**2058729.93**
	Basic rate	5518							
	Area Weightage 6%	**331.08**							
	Sub Total	**5849.08**							
	Total	**5849.08**							
6	Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.(P.No.176, I.No.22.7 of PW,P&IWTD SR 2018-19)								
	B B Nagar Kodigehalli	Sam							
	B B Nagar main Road		1.00	107.00	5.00		535.00		
	1st Cross road		1.00	66.00	4.00		264.00		
	2nd Cross Road		1.00	55.00	3.50		192.50		
	Maruthinagar								
	1st Cross road		1.00	190.00	3.50		665.00		
	2nd Cross Road		1.00	190.00	3.00		570.00		
	Cross Road		1.00	30.00	4.00		120.00		
							2346.50	72.08	169135.72
	Basic rate	68.00							
	Area Weightage 6%	**4.08**							
	Sub Total	**72.08**							
	Total	**72.08**							
7								**Total Construction Cost**	5751224.57
8								**12% GST**	690146.95
								1% PMC Charges	57512.25
								Sub Total	6498883.76
9								**Miscellaneous and rounding off**	1116.24
10								**Total**	6500000.00

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			

Certificate.

1 The work spot was inspected and work is found to be necessary.
2 The area comes within the Breath Bangalore Mahanagara Palike limits.
3 The rates adopted based on the PWD SR, Bangalore circle for year 2018-19.
4 The provisions made in the estimate are necessary and essential.

Assistant Engineer

Executive Engineer

Assistant Executive Engineer

Technical Sanction
Accorded For Rs.5.5 Lakhs only
Head of A/C P-1878
CER NO : 21 Dt: 28.05.2019

TA

CE (YNK)

ADMINISTRATIVE APPROVAL
Accorded For Rs. 6.5.00 Lakhs only
Head of A/c. P-1878
Div. Ref. No. 05 Date. 28/5/2019

AE

EE(BTP)